

## SPEECHES

### BEING THE WELCOME ADDRESS BY THE HEAD OF LAUTECH NANOTECHNOLOGY RESEARCH GROUP (*NANO*<sup>+</sup>) AT THE 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY (27-28 OCTOBER, 2020)



On behalf of LAUTECH Nanotechnology Research Group (*NANO*<sup>+</sup>), I welcome all the participants to the 4<sup>th</sup> international conference on Nanotechnology organized by *NANO*<sup>+</sup>. I also virtually welcome you to Ladoke Akintola University of Technology, Ogbomosho, Nigeria. Since her formation in 2014, *NANO*<sup>+</sup>, a multidisciplinary research group has consistently put nanotechnology discourse, research, policy and development in the front burners through cutting-edge research, publications, organization of workshops, conferences and seminars as well as media outreach.

Specifically, the group has achieved the following:

1. Organized conferences on nanotechnology in 2017, 2018 and 2019 drawing scholars and policy makers from different institutions and governmental agencies. Some of the papers presented at 2018 and 2019 conferences have been published in Nigeria (*Science Focus*) and United Kingdom (*IOP Conference Series: Materials Science and Engineering*) respectively.
2. Mentoring of students and academics in different Universities in Nigeria and beyond.
3. Media outreach in propagating news about nanotechnology in several electronic and print media in Nigeria and United Kingdom. Our website ([www.lautechnanotech.com](http://www.lautechnanotech.com)) is robust, informative and regularly updated. Since its launching in 2016, it has received more than 109,000 visitors.
4. Members of *NANO*<sup>+</sup> have published more than 100 articles in various areas of nanotechnology since 2014, making her the most productive group in nanotechnology in Nigeria.

LAUTECH NANO 2020 with its theme aptly captioned as '**Human Existence and Resource Utilization: Extending the Frontiers through Nanotechnology**' is in response to contribute to discussions about survival of man and efficient resource utilization due to constraints imposed by the ravaging COVID-19. We have brought scholars from Nigeria, South Africa, India, Saudi Arabia and Sweden to present papers at the plenary to do justice to the theme. Aside, more than forty papers would be presented by participants from Nigeria, Iran, Saudi Arabia, China, Malaysia and United Kingdom to share their research activities and experiences within the framework of the theme of the conference. The response to the *conference call* has been encouraging with registration of scholars from more than forty institutions and governmental agencies.

On behalf of the group, I sincerely thank the Honourable Minister of Science and Technology, Engr. (Dr.) Ogbonnaya Onu for identifying with our activities since 2018. He has consistently ensured his representation and participation of the ministry in our conferences. We also recognize the zeal that you put into ensuring that a roadmap for nanotechnology R&D in Nigeria is passed and implemented. We do hope that soonest, this effort will come into fruition. As usual, we are happy that you are with us at LAUTECH NANO 2020. In our quest to take Nigeria to the next level via nanotechnology R&D, we are faced with serious challenges of funding and inadequate equipment to work with. We have extensive collaboration with researchers from Saudi Arabia, India, South Africa, Malaysia and Egypt which has assisted us to stay afloat in our activities. We passionately appeal to the Honourable Minister to assist the group through intervention fund and pursuance of establishment of centre of excellence in nanoscience and nanotechnology (CEENANO) that is being pursued with TETFund. In furtherance of our efforts to promote nanotechnology, we have founded the first journal in nanotechnology in sub-Saharan Africa titled "**NANO PLUS: SCIENCE AND TECHNOLOGY OF NANOMATERIALS**" to be launched by the honourable minister at this conference. The journal is being mentored by Elsevier Africa, and has broad editorial board. I enjoy you to patronize the journal. The book of abstracts of this conference will make volume one of the journal and shall enjoy doi number that has been registered for NANO PLUS.

We have enjoyed institutional support from the management of LAUTECH since we formed the group in 2014, and it is my wish to sincerely thank the Vice-Chancellor, Prof. M.O. Ologunde and his management team for the supports for our activities. We are proud that your efforts at supporting us keep us forging ahead in promoting the good image of the University as a centre of excellence in learning and research. Similarly, we are grateful to the Dean of Faculty of Pure and Applied Sciences for his support for the group and other Deans of Faculties and Postgraduate School for their comradeship at all times. To our collaborators, senior academic colleagues, scholars, sponsors, our students, friends, participants at our programmes, gentlemen of the press, members of our families and LAUTECH community, we are grateful for your kindness and support for our activities.

Once again, I welcome all participants to LAUTECH NANO 2020 and wish us fruitful deliberations and rewarding experience of the webinar.

Thank you and God bless.



**Prof. Abiodun T. Oladipo**

**Dean, Faculty of Pure and Applied Sciences, & Chairman, Committee of Provost and Deans, LAUTECH, Ogbomoso, Nigeria**

It is my pleasure to extend my warmest greetings to all the great scientists, academicians, young researchers, and students from all over the world attending this International Conference: LAUTECH NANO 2020, to discuss the implications of Nanotechnology for Human Existence and Resource Utilization in a Multidisciplinary way.

Firstly, I am particularly delighted at the readiness of LAUTECH Nanotechnology Research Group for this important International Conference, especially during this critical period with the

unpredicted pandemic. Currently, we do attend online webinars for the latest up-to-date information instead of physical public talks; most events have been replaced with webinars and virtual conferences. Webinars are not only an excellent way to learn new things, but also require you to consider the subject from someone else's perspective and follow their line of logic. Therefore, this webinar conference shares an insight into the recent research and cutting edge technologies, which gains immense interest with the colossal and exuberant presence of adepts researchers, and talented student communities from around the world, with the opportunity to report and discuss scientific questions, achievements, and challenges in the field NANOTECHNOLOGY.

In view of this, I must heartily appreciate you on this wonderful conference; the speakers are all highly respected and professionals. Substantively, LAUTECH NANO 2020 is exceptional in its diversity and expertise of all the speakers.

I wish to congratulate the organizers and the participants in this groundbreaking event and encourage all to tap on the knowledge offered by this occasion for successful exploitation for human development.

Once again, Congratulations, and thank you for giving this University your best. I wish the group leader and your team further achievements, and hope for continued cooperation.

**WELCOME SPEECH DELIVERED BY THE VICE-CHANCELLOR, PROFESSOR MICHAEL O. OLOGUNDE, FNIFST, MWAND DURING THE OCCASION OF THE 4<sup>th</sup> INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY ORGANIZED BY THE LAUTECH NANOTECHNOLOGY RESEARCH GROUP (NANO<sup>+</sup>) HELD ON OCTOBER 27-28, 2020.**



*The Honourable Minister, Science and Technology, Federal Republic of Nigeria, Dr. Ogonnaya Onu, The Lead Speaker, Dr. Mikael Syväjärvi, Principal Officers, Ladoke Akintola University of Technology, Invited Lecturers and all other attendees from across the globe, Ladies and gentlemen,*

On behalf of the management, staff and students of Ladoke Akintola University of Technology, Ogbomosho, Nigeria, I welcome all our distinguished participants from far and wide to the University and more importantly to LAUTECH NANO 2020 Conference. I am particularly delighted to welcome the Honourable Minister of Science and Technology, Engr. (Dr.) Ogonnaya Onu to this conference. I also specially welcome the lead speaker, Dr. Mikael Syväjärvi from Linköping University, Sweden and other invited speakers to this epoch making occasion. Dr. Mikael Syväjärvi will discuss prospects for innovation in nanotechnology with reference to research funding and product development.

The LAUTECH Nanotechnology Research Group (NANO<sup>+</sup>) is a foremost multidisciplinary research group in the University and Nigeria that has consistently excelled in pursuing research activities in nanotechnology, which has greatly improved the webometric ranking of the University. The activities of the group are highly visible and commendable. Members have published about 100 research articles in nanotechnology in the last six years. The group has organized top-notch academic conferences that attracted scholars and policy makers to LAUTECH, Ogbomosho, Nigeria as well as establishing international collaborations. Most recently, the group submitted a proposal for the establishment of Centre of Excellence in Nanoscience and Nanotechnology, which we would pursue with all vigor. The University is fully committed to the realization of the mandate of this group.

At this conference, NANO<sup>+</sup> is making yet another history by launching the website of her international journal; NANO PLUS: SCIENCE AND TECHNOLOGY OF NANOMATERIALS, which is the first of its kind in West Africa sub-region. I have no doubt that the journal would thrive and meets the need of scholars worldwide. The pedigree of the architects of the journal and their broad international editorship are not in doubt as acclaimed scholars in nanotechnology. I therefore strongly recommend the journal for patronage by all and sundry.

The Honourable Minister Sir, may I use this opportunity to reiterate my call at the LAUTECH NANO 2019 conference, where I made a special request for the establishment of a Centre of Excellence in Nanotechnology at LAUTECH, Ogbomosho. This is my wish and the humble request of the University. I strongly believe that the Ministry of Science and Technology and TETFund can assist towards the realization of this request. The group deserves to be supported so that their contributions and indeed Nigeria's contributions in this burgeoning field can be strengthened. The University is fully ready to give all the necessary institutional supports towards the realization of this lofty idea. With nanotechnology, Nigeria can deploy novel processes and products to address her several problems in agriculture, water and sanitation, food safety and security, environmental degradation, energy crisis, and healthcare among others. In the new normal era as imposed by COVID-19 pandemic, nanomaterials become handy at addressing several issues confronting man in a sustainable manner. It is in realization of the foregoing that the theme of the conference "**Human Existence and Resource Utilization: Extending the Frontiers through Nanotechnology**" cannot be better discussed at any time than now.

Honorable Minister, distinguished colleagues, ladies and gentlemen, let me state it clearly that LAUTECH is adapting to the new normal and has explored technology to keep the University vibrant. The LAUTECH NANO 2020 conference is the 2<sup>nd</sup> international conference to be organized by LAUTECH scholars since the outbreak of COVID-19. We have also organized more than twenty-five webinars on series of aspects of our mandates to fast track improved service delivery.

On behalf of the management, I congratulate the Head of *NANO*<sup>+</sup>, Prof. A. Lateef and members of the group for the resilience at forging ahead despite some challenges. The University is fully appreciative of your demonstrated commitment and we will continue to support your activities. I appreciate all the scholars and participants that have elected to participate at this conference. I wish you all a fulfilling experience at the webinar. The global nature of the conference is attested to with the participation of colleagues from Nigeria, South Africa, India, Iran, Saudi Arabia, Malaysia, China, Sweden and the United Kingdom.

Once again, on behalf of the Management, Staff and Students of the University, I wholeheartedly welcome you to **LAUTECH NANO 2020** and hereby declare the conference open for the good of mankind.

Thank you and God bless.

**KEYNOTE ADDRESS BY THE SPECIAL GUEST OF HONOUR AND HONOURABLE MINISTER OF SCIENCE AND TECHNOLOGY, HIS EXCELLENCY DR. OGBONNAYA ONU, AT THE 4<sup>TH</sup> CONFERENCE ON NANOTECHNOLOGY ORGANIZED BY NANOTECHNOLOGY RESEARCH GROUP, LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY (LAUTECH); HOLDING VIA WEBINAR ON OCTOBER 27 – 28, 2020**



**PROTOCOL**

Distinguished Delegates and Participants,

I am particularly delighted to be invited once again by LAUTECH Nanotechnology Research Group (*NANO*<sup>+</sup>) as a special guest of honour to the 4<sup>th</sup> International Conference on Nanotechnology.

2. I have been part of the activities of this group since 2018 and have followed with keen interests, the giant strides, milestones with keen interest, particularly the enormous contributions to the nanotechnology discourse in the Nigerian space and beyond; projecting research activities through excellent publications, training of manpower, dissemination of information on nanotechnology through regular reports in electronic and print media and the robust website of the group ([www.lautechnanotech.com](http://www.lautechnanotech.com)) among others.

3. It is noteworthy that the group has contributed more than 100 articles on nanotechnology in the last six years, and has consistently drawn scholars and policy makers to LAUTECH since 2017 through engaging workshops and conferences.

4. Consequently, may I sincerely commend the head of the research group, Professor A. Lateef and members of his team for the resiliency and finesse in the conduct of their activities. I appreciate your interface with my Ministry; a synergy that is most needed between our Universities, governmental agencies and industry to fast track development of our economy and people.

4. It is heartwarming that the group has sustained its tempo, even with the constraints imposed by COVID-19 pandemic, to organize the annual conference via webinar. It is gratifying

that speakers from Africa, Asia and Europe that are collaborators of the group are part of this year's conference, whose wealth of experiences would be of immense benefit not only to the participants, but to our dear nation, Nigeria. I'm sure that the participants would be better equipped on how to deploy nanotechnology in their various engagements, in developing products and in patenting the outcomes of research.

**Ladies and Gentlemen:**

5. The theme of the conference '**Human Existence and Resource Utilization: Extending the Frontiers through Nanotechnology**' is apt and appropriately chosen to underscore the challenges facing mankind, and the need to deploy innovative solutions to solving them. Nanotechnology, as an innovative technology of 21<sup>st</sup> century has the potentials to solve the problems of energy crisis, water and sanitation, environmental degradation, security threat, climate change, food security and safety, and healthcare. It is the technology of the future that would open new vistas of knowledge-based economy, developments in robotics and autonomous systems; value-addition to existing processes, innovative products and services; this could also be effectively deployed in the realization of Sustainable Development Goals to engender peace and prosperity.

6. It is in realization of these potentials that I inaugurated an inter-agency committee to drive policy and development agenda for nanotechnology in Nigeria, so that our dear country can make maximum use of its benefits. At the moment, the draft policy on nanotechnology has been reviewed by my Ministry, and is receiving further attention for its eventual passage by the Federal Executive Council, Federal Republic of Nigeria. **The policy is aimed at providing the roadmap for nanotechnology development in Nigeria**, which would lead to the creation of an enabling agency to drive its mandates. I am particularly excited that LAUTECH NANO<sup>+</sup> is poised to take up these challenges.

7. At LAUTECH NANO 2019, I received the communiqué of the conference and several press releases emanating therefrom and have noted the requests of LAUTECH Nanotechnology Research Group, and the University on the need to support research activities through improved funding and establishment of Centre of Excellence in Nanoscience and Nanotechnology in the LAUTECH. The ministry continues to pledge support for your aspirations as a very viable partner in progress in charting nanotechnology course for Nigeria.



8. **Distinguished Ladies and Gentlemen**, permit me to inform you that the present administration under the leadership of President Muhammadu Buhari GCFR, has placed a high premium on Science Technology and Innovation (ST&I). The Federal Ministry of Science and Technology (FMST) early in last year launched the National Research and Innovative Council which the President himself is the Chairman. The Technology Facilitation Mechanism launched at the United Nations Summit on Sustainable Development propagates access to affordable technologies as key means of implementation of the Sustainable Development Goals. Nigeria cannot be left behind.

9. On this note, I thank the Vice-Chancellor, Ladoke Akintola University of Technology, Professor M.O. Ologunde for creating a peaceful atmosphere for academic engagement and support for nanotechnology research which has further projected the good image of the University. The speakers at the conference are highly appreciated and I congratulate the delegates and participants for being part of this engagement.

10. Ogbomoso is a popular city in Oyo State, South-Western Nigeria, a very famous city which is known for its history of bravery, I enjoin the group therefore to showcase though via this Webinar also, its ambience and green culture of our people as you keep the *NANO*<sup>+</sup> flag flying.

11. It is therefore my privilege to declare open this Conference on “**Human Existence and Resource Utilization: the Frontiers through Nanotechnology**”, with wishes of fruitful deliberations.

**The Honourable Minister,**  
**Federal Ministry of Science and Technology,**  
**Federal republic of Nigeria, Abuja.**  
**27<sup>th</sup> October, 2020**